

January 12, 1948.

Dr. C. B. Purves,  
Dept. Chemistry,  
Mass. Inst. Technology,  
Cambridge, Mass.

Dear Dr. Purves,

I have been interested in studying the genetic aspects of enzyme synthesis and specificity in bacteria. Attention is now being focussed on mutations affecting the utilization of sucrose by *E. coli*. For the analysis it would be exceedingly helpful to use certain synthetic glycosides analagous to the natural sugars. Having noticed some references to your work of a decade past, I am turning to you for assistance: Your reply to these queries would be appreciated greatly--

Have synthetic b- fructofuranosides, with an alkyl or aryl aglycon been synthesized?(i.e. crystallized as pure compounds, and definitively characterized). If not, to what extent has their preparation been carried? Can you offer suggestions for the preparation and partial separation of impure syrups? If any are still available, reprints of your older papers on these compounds would be appreciated. I would also be most grateful for a sample (0.1-0.5 g.), if you have any of these on hand and are prepared to distribute same, even of a mixed syrup which was substantially free of reducing sugar (less than 2-5%) which would be helpful in guiding my synthetic attempts, and in deciding whether to try them.

Yours sincerely,

Joshua Lederberg  
Assistant Professor of Genetics